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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,155	12/20/2001	Christy L. Lee	01-628US	3386

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CATERPILLAR INC.  
100 N.E. ADAMS STREET  
PATENT DEPT.  
PEORIA, IL 616296490

EXAMINER

UNDERWOOD, DONALD W

ART UNIT PAPER NUMBER

3652

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/028,155

Applicant(s)

LEE, CHRISTY L.

Examiner

Donald Underwood

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10/14/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-7 and 10-20 is/are pending in the application.
- 4a) Of the above claim(s) 18-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-7 and 10-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**Detailed Action**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/14/04 has been entered.

2. Claims 18, 19 and 20 stand withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 04/23/03.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 3, 4, 6, 7 and 10-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "determined based on predetermined criteria" bridging lines 8 and 9 of claim 1 renders these claims indefinite since no criteria are set forth. As they stand one would not know when they would be infringing these claims if they were allowed.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Peterson.

It is inherent that the plates 74 and 76 and tube 122 (claim 9) are sized to receive the expected loads and/or are located at the points where these loads will occur since larger and/or heavier plates would increase weight and thus cost and it is desirable to hold manufacturing costs down and since the plates and tube are connected at connection points on the boom.

Regarding the location of the reinforcing structure, the reinforcing structure 74, 76 could be slid forward or rearward prior to assembly as long as attachment pin 68 was placed in the bend. Note figure 2 of Peterson shows 68 against the right side of the bend toward the rear end of the boom but it could be positioned against the left side of the bend toward the front end of the boom.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peterson.

While the examiner is of the opinion that the structure in Peterson inherently meets the instant claims for the reasons set forth in the above rejection, it would have

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been obvious to size plates 74 and 76 and tube 122 to be no larger than needed to handle the expected loads because this would have saved manufacturing cost. Parts are conventionally manufactured to withstand the expected loads but not overdesigned to increase cost.

The remarks regarding the location of the reinforcing structure set forth in the preceding rejection are herein repeated.

9. Claims 3, 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Waka.

Note Waka figures 10-13 comprise top 24, sides 25, bottom 27 and reinforcing 28, 43. It would have been obvious to size the reinforcing to be no larger than needed to handle the expected loads because this would have saved manufacturing cost. Parts are conventionally manufactured to withstand the expected loads but not overdesigned to increase weight and size.

Regarding the location of the reinforcing structure, note reinforcing 28 can vary in size. See figure 11 and 12 where 28 extends upward further in fig 12 than figure 11. Finally as noted in the rejection of claim 1 this limitation does not provide a structural limitation. See the rejection of claim 1 above.

Regarding 43 comprises the rib as broadly claimed and 28 a base portion.

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peterson as applied to claim 1 above, and further in view of the following comments.

Peterson is silent on how these elements are assembled; however, laser welding is a conventional way of assembling metal structure and thus it would have been obvious to use laser welding to assemble the elements in Peterson.

11. Claims 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al in view of Peterson.

It would have been obvious to provide boom 5 in Kobayashi with plates and provide the cylinder mounts on the plates instead of attaching the mounts directly to the booms as in Kobayashi in view of the teaching in Peterson because this would better spread the loads to the boom. As for sizing the plates to reduce weight or to locate the plates at the selected attachment point to reduce weight, manufacturing dictates the former since weight saving and thus cost are conventional manufacturing criteria and Peterson teaches the latter by locating his reinforcing at loading points.

Regarding the location of the reinforcing structures, the plates added to Kobayashi in view of Peterson would have a tolerance as noted in the rejection of claim 1 in the discussion of Peterson's plates.

12. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al in view of Waka.

It would have been obvious to construct boom 5 in Kobayashi utilizing any conventional structure including that taught by Waka. Note base 28 and rib 43.

13. Applicant's argument regarding Peterson and its lack of a showing of buckling are not deemed persuasive. If the distal end of Peterson's boom were loaded and a cylinder connected at 68 to support the boom the loading would be transferred back

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through the cylinder at 68. The plates 74 and 76 would disperse the load at 68 along the boom section to prevent buckling. Moreover the booms in Peterson and Kobayashi are set up as are applicant's claimed booms and would thus be as subject to buckling as applicant's claimed boom, i.e., the booms all have a top, bottom and side plates, are pivoted at one end, support a load at the other end and are supported approximate their centers by a cylinder. If there are other structural characteristic of applicant's boom that cause his boom to give way to buckling they do not appear in the claims.

14. Applicant's argument regarding his rib has been carefully considered but is not deemed persuasive since the claims do not set forth any structural characteristics of the rib and thus do not define over 43 in Waka.

15. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

16. Any inquiry concerning this communication should be directed to D. Underwood at telephone number (703) 308-1112.

Underwood/vs  
December 23, 2004

*Donald W. Underwood* 01/10/04  
DONALD W. UNDERWOOD  
PRIMARY EXAMINER